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VOC FOR IOP/FN
BACKGROUNDER 1-0881
RODERICK TURNBULL/KANSAS

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PROGRESS TOWARD HYBRID WHEAT

ANNCR:

ONE OF THE WAYS OF INCREASING GRAIN PRODUCTION IS TO INCREASE THE YIELD FROM EACH PLANT. FROM KANSAS CITY, AGRICULTURE SPECIALIST RODERICK TURNBULL SENDS THIS REPORT ABOUT NEW EFFORTS IN THE PRODUCTION OF WHEAT.

VOICE:

AUTHORITIES THE WORLD OVER ARE TALKING ABOUT THE ABILITY OF THE WORLD TO FEED ITSELF IN THE YEARS AHEAD. SOME ESTIMATE THE WORLD POPULATION WILL ALMOST DOUBLE BY THE YEAR TWO THOUSAND. OBVIOUSLY, AN INCREASE ANYWHERE NEAR THAT SIZE WOULD REQUIRE A TREMENDOUS INCREASE IN FOOD PRODUCTION. AND MOST OF THAT INCREASE WOULD HAVE TO COME FROM LAND ALREADY IN USE.

AGRICULTURAL SCIENTISTS IN THE UNITED STATES HAD GREAT SUCCESS IN THE PAST IN GETTING GREATER YIELDS BY CROSSING ONE STRAIN OF CORN (MAIZE) OR GRAIN SORGHUM WITH ANOTHER TO PRODUCE A HYBRID. TODAY HYBRIDS ARE USED ALMOST EXCLUSIVELY, AND IN THE PAST TWENTY-FIVE YEARS, TOTAL YIELDS FOR THESE CROPS HAVE ABOUT DOUBLED.

NOW, EFFORTS ARE UNDERWAY TO DO MUCH THE SAME THING WITH WHEAT. CROP SCIENTISTS ARE MAKING PROGRESS IN DEVELOPING- WHEAT HYBRIDS. BUT THE TASK IS FAR MORE DIFFICULT THAN WITH CORN OR GRAIN SORGHUM. (OPT) THE REASONS FOR THE DIFFERENCE REQUIRE SCIENTIFIC EXPLANATIONS, BUT ESSENTIALLY THEY HAVE TO DO WITH THE DIFFERENT WAYS THE PLANTS POLLINATE THEMSELVES.
(END OPT)

BUT A HYBRID WHEAT HAS NO ADVANTAGE UNLESS IT IS BETTER THAN THE PURE STRAIN. THE PROBLEM IS TO PRODUCE HYBRIDS THAT NOT ONLY WILL YIELD BETTER THAN THE WHEATS NOW BEING GROWN, BUT ALSO WILL HAVE GOOD MILLING AND BAKING PROPERTIES. (OPT) THIS, INCIDENTALLY, WAS NOT A PROBLEM WITH CORN AND GRAIN SORGHUM HYBRIDS WHERE THE ONLY GOALS WERE INCREASED YIELDS. (END OPT)

HYBRID WHEAT DEVELOPMENT AND EXPERIMENTATION IS BEING CARRIED ON BY SEVERAL COMMERCIAL SEED COMPANIES AND BY SOME OF THE STATE AGRICULTURAL EXPERIMENT STATIONS. TO DATE THEY ACTUALLY HAVE PRODUCED OR CREATED SOME HYBRIDS OF HARD RED WINTER WHEAT THAT HAVE GOOD QUALITY AND THAT YIELD BETTER THAN THE NORMAL STRAIN. BUT SO FAR, THE SEED SUPPLY IS LIMITED. AS ONE AUTHORITY PUT IT, THE EARLIER PROBLEMS OF PRODUCING HYBRID WHEAT HAVE BEEN SOLVED, BUT IT WOULD BE NAIVE TO SAY THAT ALL PROBLEMS HAVE BEEN SOLVED. THIS SAME AUTHORITY PREDICTS THAT HYBRID WHEAT WILL BECOME AN ECONOMIC REALITY IN THE UNITED STATES AND MANY OTHER COUNTRIES BY NINETEEN-EIGHTY.

ONE LARGE SEED COMPANY SAYS ITS EXPERIMENTAL WORK IN KANSAS INDICATES THAT USE OF HYBRID WHEAT COULD INCREASE YIELDS BY ABOUT TWENTY PERCENT. THE INTERNATIONAL WHEAT COUNCIL IN LONDON SAYS THE WORLD MAY PRODUCE A RECORD WHEAT CROP THIS YEAR -- BETWEEN 375 AND 385 MILLION METRIC TONS. IF FARMERS EVERYWHERE WERE GROWING HYBRID WHEAT THIS YEAR, IT WOULD BE POSSIBLE TO PREDICT A WORLD CROP 75 MILLION TONS MORE THAN THAT.

THE EXPERIMENTS ON HYBRID WHEAT THUS SUGGEST THAT SOME TIME IN THE FUTURE, WORLD FOOD SUPPLIES CAN BE INCREASED DRAMATICALLY

SIMPLY BY THE USE OF HYBRID WHEATS ON THE SAME LAND NOW BEING
USED TO PRODUCE NORMAL STRAINS.

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